`

Planetary Health Report Card (Medicine)

University of Glasgow

2023-2024 Contributing Team:
● Students: Eda Lyuman, Elise McFarland, Ann-Elin Myhre*, Karolina Omenzetter, Riya Philip
● Faculty Mentors: Dr Camille Huser, Dr Noy Basu
● *Primary Contact: Ann-Elin Myhre, 2118805m@student.gla.ac.uk

Summary of Findings

Overall	C+

Curriculum	B-

- University of Glasgow features standalone lectures in Years 1 and 3 about Planetary Health, and some mention of these concepts in core lectures about reproductive health and respiratory health.
- **Recommendations:** There is a lack of teaching about the impact of climate change on mental health, surgery and other specialties. It would be beneficial to see Planetary Health concepts integrated longitudinally to complement the spiral curriculum that the university advocates for.

Interdisciplinary Research	B

- University of Glasgow has several staff members who engage with Planetary Health (PH) Research. The university has also organised and hosted conferences on the topic.
- **Recommendations**: The medical school can become more engaged with creating dialogues with communities affected by climate change that can inform future planetary health research. To improve this relationship, we would like to see events organised by the medical school to encourage public discourse surrounding planetary health and the research that is undertaken.

Community Outreach and Advocacy	D

- The University of Glasgow has inspiring partnerships such as the GALLANT initiative, but the Medical School has little outreach in comparison. There are PH courses available from the university.
- **Recommendations**: Although we appreciate that the University has continued its efforts to engage with the public, the medical school must begin to foster its own community connections. Next year this will be improved through running an experiment stall for children at the Glasgow Science Festival about the impact of Climate Change on health. It would also be beneficial if easily accessible patient resources were created for affiliated teaching hospitals about PH. Finally, more information about PH could be distributed in student communications such as the Weekly Bulletin.

Support for Student-Led Initiatives	B

- There are improved resources to search for elective opportunities that relate to PH. There are U21 RISE awards to fund student initiatives related to the Sustainable Development Goals. There are also opportunities within SSCs to do PH research or a QI project in the Sustainability in Surgery SSC. University societies and groups such as GUEST actively create events for the student population.
- **Recommendations**: We recommend the Medical School develops a website that centralises information around PH or ESH, including opportunities and mentors. A student group which fosters engagement with climate change and health would also be welcome.

Campus Sustainability	B-

- With most decisions run centrally by the University, the medical school has little control over campus sustainability measures. Nonetheless, given the considerable impacts of climate change on health, the medical school should advocate for increased sustainability measures.
- **Recommendations:** The Medical School should engage with the CSS S-Lab initiative and promote sustainable travel through improved reimbursement for carpooling and using public transport to attend hospital placements. The Student Representative Council is in discussion about implementing sustainability guidelines for events. We would also like to see a more rapid divestment from fossil fuels.

Statement of Purpose

Planetary health is human health.

The Planetary Health Alliance describes planetary health as "a solutions-oriented, transdisciplinary field and social movement focused on analysing and addressing the impacts of human disruptions to Earth's natural systems on human health and all life on Earth." This definition is intentionally broad, intended to encompass the multitude of ways that the environment can affect health, including water scarcity, changing food systems, urbanisation, biodiversity shifts, natural disasters, climate change, changing land use and land cover, global pollution, and changing biogeochemical flows. The health of humanity is dependent on our environment, and our environment is changing rapidly and in disastrous ways. Although the World Health Organization has called climate change "the greatest threat to global health in the 21st century," many medical school's institutional priorities do not reflect the urgency of this danger to human health.

As future health professionals, we must be prepared to address the impacts of human-caused environmental changes on our patients' health. This preparation is in the hands of the institutions providing our medical training. It is imperative that we hold our institutions accountable for educating medical students about the health impacts of climate change and other anthropogenic environmental changes, generating research to better understand health impacts and solutions, supporting related student initiatives, embracing sustainable practices as much as possible, and engaging with surrounding communities that are most affected by environmental threats. Because climate change and environmental threats disproportionately affect vulnerable populations (for example, communities of colour, older adults sensitive to health threats, and individuals in low-resource settings), these issues are inherently ones of equity and justice.

With the purpose of increasing planetary health awareness and accountability among medical schools, we have created a Planetary Health Report Card that medical students internationally can use to grade and compare their home institutions on an annual basis. This medical-student-driven initiative aims to compare medical schools nationally and internationally on the basis of discrete metrics in five main category areas: 1) planetary health curriculum, 2) interdisciplinary research in health and environment, 3) university support for student planetary health initiatives, and 4) community outreach centred on environmental health impacts 5) medical school campus sustainability.

Definitions & Other Considerations

Definitions:

- **Planetary Health:** is described by the Planetary Health Alliance as "the health of human civilisation and the state of the natural systems on which it depends." For example, topics such as climate change, declining biodiversity, shortages of arable land and freshwater, and pollution would all fall under the realm of planetary health. Both planetary health and traditional 'environmental health' examine the relationship between human health and the external environment, including extreme temperatures, chemicals, vector-borne diseases, etc. Planetary health explicitly concerns itself with the potential health harms associated with human-caused perturbations of natural systems. Therefore, the human health focus of planetary health makes the field well-adapted for the context of medical school education. Throughout this report card, we use the term planetary health to refer to this broad swath of topics, but resources do not need to explicitly include the term "planetary health" to satisfy the metric.

- **Sustainable Healthcare:** As defined by the Academy of Royal Colleges, sustainable healthcare involves ensuring the ability to provide good quality care for future generations by balancing the economic, environmental, and social constraints and demands within health care settings. A sustainable healthcare system maintains population health, reduces disease burden and minimises use of healthcare services.

- **Education for Sustainable Healthcare (ESH):** is defined as the process of equipping current and future health professionals with the knowledge, attitudes, skills and capacity to provide environmentally sustainable services through health professional education, thus working to decrease the enormous environmental impact of the healthcare industry. Planetary Health Education is an integral part of this education rather than an end in itself. This is because knowledge on Planetary Health is required to be able to fully understand the necessity of sustainable healthcare as well as being part of the broader knowledge needed to fully protect and promote health. In summary, ESH is covered by the three Priority Learning Outcomes of the Centre of Sustainable Healthcare below, and Planetary Health Education is embraced in the first learning objective and is a fundamental requirement to achieve learning outcomes 2 and 3:

    1. Describe how the environment and human health interact at different levels.

    2. Demonstrate the knowledge and skills needed to improve the environmental sustainability of health systems.

    3. Discuss how the duty of a doctor to protect and promote health is shaped by the dependence of human health on the local and global environment.

- **Medical School vs. Institution:** When "medical school" is specified in the report card, this only refers to curriculum and resources offered by the School of Medicine and does not include offerings from other parts of the university (e.g. undergraduate departments (USA), other related departments (e.g. Public Health, Population Health departments). In contrast, when "institution" is specified in the report card, we are referring to the university more

broadly. Any resource reasonably accessible by medical students, no matter where in the institution the resource comes from or if it is specifically targeted for medical students, can meet this metric.

- **Environmental history (Metric #19 in Curriculum Section):** This is a series of questions providers are taught to ask during medical encounters that elicits patients' exposures and environmental risk factors. Historically, this has included consideration of exposures like pesticides, asbestos, and lead, though in the modern era shaped by climate change, it can be expanded to include things like wildfire smoke exposure, air pollution and mould after flooding. Key components include place of residence over the lifecourse, occupational history, food and water sources (e.g. meat from industrial feeding operations, regular fishing in contaminated water, access to clean drinking water), and exposure to air pollution.

- **Elective:** The word "elective" refers to an optional course or lecture series that a medical student can opt to take part in but is not a requirement in the core curriculum. Generally, these elective courses take place in the preclinical curriculum but vary by school.

- **Clerkship:** This is a term used in the USA to refer to placements that medical students go on e.g. Pediatrics, General medicine, Psychiatry. In the UK these are referred to as rotations or placements.

Other considerations:

- If there are more than one "tracks" at your medical school with two different curricula (for example, Harvard Medical School has a Pathways and HST curriculum track), you can choose to fill out a report card for each track, or fill out just one report card and average the scores received by each track in cases where the scores are different (see the 2021 Harvard or Oxford report cards as examples).

Added to our resources in 2022, the Planetary Health Report Card Literature Review by Metric collates the evidence behind each of the metrics in the Planetary Health Report Card. It serves as a collection of references for further learning and a resource for those advocating for increased planetary health engagement at their institutions.

Planetary Health Curriculum

Section Overview: ***This section evaluates the integration of relevant planetary health topics into the medical school curriculum.*** *Today's medical students will be on the frontlines of tackling the health effects of climate and other environmental changes. Therefore, it is critical that medical students are trained to understand the health effects of these changes, as well as planetary health issues and principles more broadly. Topics like the changing geography of vector-borne diseases, the health consequences of air pollution, environmental health inequities, and disaster response principles must be part of every medical school's core curriculum.*

Curriculum: General

1.1. Did your medical school offer elective courses (student selected modules) to engage students in Education for Sustainable Healthcare or Planetary Health in the last year?	
3	Yes, the medical school has offered **more than one** elective whose primary focus is ESH/planetary health in the past year.
2	Yes, the medical school has offered **one** elective whose primary focus is ESH/planetary health in the past year.
1	The medical school does **not** have any electives whose primary focus is ESH/planetary health, but there are one or more electives that include a **lecture** on planetary health.
0	No, the medical school has **not** offered any electives on planetary health or electives that include ESH/planetary health topics in the past year.
The University of Glasgow offers several student selected modules, which all last 5 weeks, related to planetary health/ ESH: "Global, Environmental & Planetary Health", "Introduction to climate change & sustainable healthcare", "Sustainability in Surgery".	

Curriculum: Health Effects of Climate Change

1.2. Does your medical school curriculum address the relationship between extreme heat, health risks, and climate change?	
3	This topic was explored **in depth** by the **core** curriculum.
2	This topic was **briefly** covered in the **core** curriculum.
1	This topic was covered in **elective** coursework.
0	This topic was **not** covered.
This was briefly covered in a lecture titled 'Climate change, planetary health and environmental sustainability (MBChB3)', who discussed the health effects of the 2022 heat wave in the UK. This was also covered in the formative MILE (MBChB1) as well as in a lecture by titled 'Climate change and health' (MBChB1).	

This topic was also covered in "Global and Travel Medicine" and "Mapping the Sustainable Development Goals in MBChB year1 and 2", which are both Student Selected Components in Year 2. Student Selected Components are elective, and as such, not all medical students are taught about this topic.

1.3. Does your medical school curriculum address the impacts of extreme weather events on individual health and/or on healthcare systems?	
3	This topic was explored **in depth** by the **core** curriculum.
2	This topic was **briefly** covered in the **core** curriculum.
1	This topic was covered in **elective** coursework.
0	This topic was **not** covered.
This was briefly covered in a lecture titled 'Climate change, planetary health and environmental sustainability (MBChB3)', who discussed the health effects of the 2022 heat wave in the UK. This was briefly covered in a lecture titled 'Climate change and health (MBChB1)', who discussed the direct and indirect effects of wildfires, storms and flooding on health.	

1.4. Does your medical school curriculum address the impact of climate change on the changing patterns of infectious diseases?	
3	This topic was explored **in depth** by the **core** curriculum.
2	This topic was **briefly** covered in the **core** curriculum.
1	This topic was covered in **elective** coursework.
0	This topic was **not** covered.
This was briefly covered in a lecture titled 'Climate change, planetary health and environmental sustainability (MBChB3)', who discussed the effects of climate change on vector ecology as well as pathogen distribution and transmission. *The lecture 'Climate change and health' (MBChB1) touches on the increase in vector borne diseases.* *The lecture "Endemic infections, outbreaks, epidemics and pandemics" addresses climate change's impact on the worsening spread of various infectious diseases as part of the "Global, Environmental & Travel Health" Student Selected Component.*	

1.5. Does your medical school curriculum address the respiratory health effects of climate change and air pollution?	
3	This topic was explored **in depth** by the **core** curriculum.
2	This topic was **briefly** covered in the **core** curriculum.
1	This topic was covered in **elective** coursework.

0	This topic was **not** covered.

This was briefly covered in a lecture titled 'Climate change, planetary health and environmental sustainability (MBChB3)', who discussed the case of Ella Kissi-Debrah, a young girl with asthma, whose death was death was linked to high levels of air pollution. The lecture 'Climate change and health' (MBChB1) touches on the health impacts, including mortality, of air pollution on respiratory health.

1.6. Does your <u>medical school</u> curriculum address the cardiovascular health effects of climate change, including increased heat?	
3	This topic was explored **in depth** by the **core** curriculum.
2	This topic was **briefly** covered in the **core** curriculum.
1	This topic was covered in **elective** coursework.
0	This topic was **not** covered.

This was briefly covered in a lecture titled 'Climate change, planetary health and environmental sustainability (MBChB3)', which emphasised the increased cardiovascular health effects of recent heat waves across the United Kingdom.

1.7. Does your <u>medical school</u> curriculum address the mental health and neuropsychological effects of environmental degradation and climate change?	
3	This topic was explored **in depth** by the **core** curriculum.
2	This topic was **briefly** covered in the **core** curriculum.
1	This topic was covered in **elective** coursework.
0	This topic was **not** covered.

This was briefly covered in a lecture titled 'Climate change, planetary health and environmental sustainability (MBChB3)'. The lecture 'Climate change and health' (MBChB1) covers the mental health impacts of climate change. This topic is equally covered in the "Global, Environmental & Travel Health" student selected component, with a lecture on the"Psychological health issues relating to Travel".

1.8. Does your <u>medical school</u> curriculum address the relationships between health, individual patient food and water security, ecosystem health, and climate change?	
3	This topic was explored **in depth** by the **core** curriculum.
2	This topic was **briefly** covered in the **core** curriculum.
1	This topic was covered in **elective** coursework.

0	This topic was **not** covered.

The lecture 'Climate change and health' (MBChB1) touches on the relationship between climate change and drinking water security. It discusses how increased water evaporation depletes surface water storages, and contamination of fresh water with salt (from rising sea levels), algae and chemicals. This lecture could benefit from further discussing food security and ecosystem health. This topic is also covered in the "Global, Environmental & Travel Health" Student Selected Component, with a focus on different interpretations of "health" by different cultures and considering not just "patients" but the wishes and health of the general population. One lecture, "Food security", addresses production issues, the impact of travel as well as the international trade of food products and another, "One Health", links human and animal health.

1.9. Does your medical school curriculum address the outsized impact of climate change on marginalised populations such as those with low SES, women, communities of color, Indigenous communities, children, homeless populations, and older adults?	
3	This topic was explored **in depth** by the **core** curriculum.
2	This topic was **briefly** covered in the **core** curriculum.
1	This topic was covered in **elective** coursework.
0	This topic was **not** covered.

The lecture 'Climate change and health' (MBChB1) covers how marginalised groups in society are more affected by climate change, as well as explores how socio-economic status affects the resilience to the impacts of climate change. Nonetheless, the affected groups are not specifically identified, especially at a global scale. This topic is covered in the "Global, Environmental & Travel Health" Student Selected Component, when discussing the effects of Climate Change and the "Global South" in a lecture entitled "Health Services in India and three case studies on assisting remote and disadvantaged communities to improve their health".

1.10. Does your medical school curriculum address the unequal regional health impacts of climate change globally?	
3	This topic was explored **in depth** by the **core** curriculum.
2	This topic was **briefly** covered in the **core** curriculum.
1	This topic was covered in **elective** coursework.
0	This topic was **not** covered.

This was very briefly mentioned in the lecture 'Climate change and health' (MBChB1). This topic is further covered during the "Global, Environmental & Travel Health" Student Selected Component, especially when talking about the "Global South" and how different countries will be/are being more affected than the UK, in lectures entitled "Health issues in local populations and travellers in Nepal" and "Health Services in India and 3 case studies on assisting remote and disadvantaged communities to improve their health".

Curriculum: Environmental Health & the Effects of Anthropogenic Toxins on Human Health

1.11. Does your <u>medical school</u> curriculum address the reproductive health effects of industry-related environmental toxins (e.g. air pollution, pesticides)?	
3	This topic was explored **in depth** by the **core** curriculum.
2	This topic was **briefly** covered in the **core** curriculum.
1	This topic was covered in **elective** coursework.
0	This topic was **not** covered.
This topic is covered within the "Keeping People Healthy Block" in Year 1 and briefly reiterated within the "Reproduction, Nephrology and Urology" block in Year 2, with a lecture on "Endocrine Disruptors": endocrine disruptors were shown to cause fertility problems and increase the incidence of diseases, such as cancer. Phthalates and how they pose a risk to human development especially in infant males, causing infertility in adulthood, were also discussed. In Year 2 a lecture entitled 'Cryptorchidism' also refers to how environmental and lifestyle changes in the western world are increasing the prevalence of male infertility problems.	

1.12. Does your <u>medical school</u> curriculum address important human-caused environmental threats that are relevant to the university's surrounding community?	
3	This topic was explored **in depth** by the **core** curriculum.
2	This topic was **briefly** covered in the **core** curriculum.
1	This topic was covered in **elective** coursework.
0	This topic was **not** covered.
In Year 1, students have to complete a "Community Diagnosis", where they are allocated a neighbourhood in Glasgow and tasked to understand the impact of community on the health of its inhabitants. Depending on the neighbourhood (i.e. areas previously associated with industry), students may be able to explore important human-caused environmental threats that have affected that community. Unfortunately, this is only a very small section of the coursework and will not be covered by all students. Additionally, in Year 2, students undertake the "Family Project", where they are allocated a family through a local GP practice and must consider the factors that affect the growth and development of their child/children. One section of the project asks students to consider the effects of climate change on the development and health of the child, taking into account the impact on medical conditions and the social environment that they will grow up in.	

1.13. To what extent does your <u>medical school</u> emphasise the importance of Indigenous knowledge and value systems as essential components of planetary health solutions?	
3	Indigenous knowledge and value systems are **integrated throughout** the medical school's planetary health education
2	Indigenous knowledge and value systems as essential components of planetary health solutions are included **briefly** in the core curriculum.

1	Indigenous knowledge and value systems as essential components of planetary health solutions are included in **elective** coursework.
0	This topic was **not** covered.

While the "Global, Environmental & Travel Health" Student Selected Component does cover environmental challenges faced by Indigenous communities, it does not adequately emphasise the importance of their knowledge and value systems as essential components of planetary health solutions.

1.14. Does your <u>medical school</u> curriculum address the outsized impact of anthropogenic environmental toxins on marginalised populations such as those with low SES, women, communities of colour, children, homeless populations, Indigenous populations, and older adults?	
3	This topic was explored **in depth** by the **core** curriculum.
2	This topic was **briefly** covered in the **core** curriculum.
1	This topic was covered in **elective** coursework.
0	This topic was **not** covered.

The lecture 'Climate change and health' (MBChB1) discusses the increased vulnerability of certain demographics and communities to the impacts of climate change. However, it does not cover the effects of anthropogenic environmental toxins.

Curriculum: Sustainability

1.15. Does your <u>medical school</u> curriculum address the environmental and health co-benefits of a plant-based diet?	
3	This topic was explored **in depth** by the **core** curriculum.
2	This topic was **briefly** covered in the **core** curriculum.
1	This topic was covered in **elective** coursework.
0	This topic was **not** covered.

While lectures on kidney stones in Years 2 and 3 briefly mention increased consumption of animal protein as a risk factor, the environmental benefits of a plant-based diet are not raised. It is neither approached in lectures on nutrition or obesity, with the emphasis rather being on the "EatWell plate", which includes animal protein. One of the PBL ILOs includes addressing the health benefits of a plant based diet.

1.16. Does your <u>medical school</u> curriculum address the carbon footprint of healthcare systems?	
3	This topic was explored **in depth** by the **core** curriculum

2	This topic was **briefly** covered in the **core** curriculum.
1	This topic was covered in **elective** coursework.
0	This topic was **not** covered.
This topic was briefly mentioned during "Vocational Studies" sessions in Year 2, however the emphasis was more on individual impacts on the carbon footprint rather than that of the healthcare system as a whole.	

1.17. Does your <u>medical school</u> curriculum cover these components of sustainable clinical practice in the <u>core</u> curriculum? (points for each)	
2	The health **and** environmental **co-benefits** of **avoiding** over-medicalisation, over-investigation and/or over-treatment
2	The environmental impact of **pharmaceuticals** and over-prescribing as a cause of climate health harm. Alternatively teaching on **deprescribing** where possible and its environmental and health co-benefits would fulfil this metric.
1	The health **and** environmental **co-benefits** of **non-pharmaceutical management** of conditions where appropriate such as exercise or yoga classes for type 2 diabetes; social group activities such as gardening for mental health conditions; active transport such as bicycle schemes. This is commonly known as social prescribing in the UK.
1	Environmental impact of **surgical** healthcare on planetary health and the climate crisis, and how can it be mitigated
1	The impact of **anaesthetic** gases on the healthcare carbon footprint and ways to reduce anaestheisa's environmental impacts, such as total intravenous anaesthesia or choosing less environmentally harmful anaesthetic gas options with reduced greenhouse gas emissions
1	The impact of **inhalers** on the healthcare carbon footprint and the environmental benefit of dry powdered inhalers over metered dose inhalers.
1	**Waste production** within healthcare **clinics** and strategies for reducing waste in clinical activities (e.g. single use items in the inpatient or outpatient setting)
	1. *Lectures will often mention the increased costs associated with over-investigation of conditions. There are sessions about Medicine for the Elderly during MBChB4 which highlights the negative impact of polypharmacy and importance of deprescribing to improve patient safety and minimise waste.* 2. *Emphasis is made on conservative treatment such as exercise and "social prescribing" within PBL sessions about diabetes.* 3. *The medical school curriculum does not include environmental impact of surgical healthcare on planetary health.* 4. *"Anaesthetic Week" in MBChB3 surgery placement also features ILOs about anaesthetic gases and environmental impact of their usage.* 5. *The impact of inhalers was also highlighted in Noy Basu's lecture on 'Climate change, planetary health and environmental sustainability (MBChB3)'.* 6. *Students must complete a LearnPRO module about clinical waste management before starting on clinical placements in phase 3.*

Curriculum: Clinical Applications

1.18. In training for patient encounters, does your <u>medical school's</u> curriculum introduce strategies to have conversations with patients about the health effects of climate change?	
2	Yes, there are strategies introduced for having conversations with patients about climate change in the **core** curriculum.
1	Yes, there are strategies introduced for having conversations with patients about climate change in **elective** coursework.
0	No, there are **not** strategies introduced for having conversations with patients about climate change
The Student Selective Components available primarily focus on the theory and clinical governance surrounding improving planetary health rather than teaching on discussing climate change with patients.	

1.19. In training for patient encounters, does your <u>medical school's</u> curriculum introduce strategies for taking an environmental history or exposure history?	
2	Yes, the **core** curriculum includes strategies for taking an environmental history.
1	Only **elective** coursework includes strategies for taking an environmental history.
0	No, the curriculum does **not** include strategies for taking an environmental history.
The modules "Vocational skills", in Years 1 to 2, and "Clinical Skills", in Year 3, train students to take a full history, which includes asking about environmental (e.g. travel, home environment) and occupational exposures (e.g. occupational hazards and toxins). This is done through several practice simulations with actors or volunteers acting as patients.	

Curriculum: Administrative Support for Planetary Health

1.20. Is your <u>medical school</u> currently in the process of implementing or improving Education for Sustainable Healthcare (ESH)/planetary health education?	
4	Yes, the medical school is currently in the process of making **major** improvements to ESH/planetary health education.
2	Yes, the medical school is currently in the process of making **minor** improvements to ESH/planetary health education.
0	No, there are **no** improvements to planetary health education in progress.
Our Planetary Health lead has been making good progress since last year, however more efforts to integrate Planetary Health teaching holistically throughout the curriculum is needed.	

1.21. How well are the aforementioned planetary health/Education for Sustainable Healthcare topics integrated longitudinally into the <u>core</u> curriculum?	
6	Planetary health/ESH topics are **well integrated** into the core medical school curriculum.
4	**Some** planetary health/ESH topics are appropriately integrated into the core medical student curriculum.
2	Planetary health/ESH is not integrated and is primarily addressed in **(a) standalone lecture(s).**
0	There is **minimal/no** education for sustainable healthcare.
Some topics such as genitourinary health make excellent links between environmental toxins and exposures impacting reproductive health of patient's. There is also good mention of the impact of environmental factors affecting respiratory health, and the importance of integrating this knowledge while taking patient histories. Other specialties which need to make reference to the impact of climate change on health within core lecture content include cardiology, rheumatology, neurology, gastroenterology, psychiatry, and surgery amongst others.	

1.22. Does your <u>medical school</u> employ a member of faculty to specifically oversee and take responsibility for the incorporation of planetary health and sustainable healthcare as a theme throughout the course?	
1	**Yes,** the **medical school** has a specific faculty/staff member responsible for overseeing curricular integration of planetary health and sustainable healthcare
0	**No**, the **medical school** does **not** have a specific faculty/staff member responsible for overseeing curricular integration of planetary health and sustainable healthcare.
The medical school has a Global and Planetary Health Vertical theme lead, Dr Noy Basu.	

Section Total (45 out of 72)	**62.50%**

Back to Summary Page here

Are there additional curriculum resources offered at your medical school or institution not yet asked about that you would like to describe? If so, please do so below.

Interdisciplinary Research

Section Overview: ***This section evaluates the quality and quantity of interdisciplinary planetary health research at the medical school and broader institution.*** *Interactions between health and the environment are complex and multifactorial. While climate change has been extensively studied from an environmental science perspective, planetary health is an emerging field. As leading health institutions with talented researchers and research resources, medical schools should fund research studying the health effects of climate change and anthropogenic environmental toxins. This obligation is particularly strong because the public and policymakers are more attentive to climate change when its implications for human health are emphasised.*

2.1. Are there researchers engaged in planetary health research and healthcare sustainability research at your medical school?	
3	Yes, there are faculty members at the **medical school** who have a **primary r**esearch focus in planetary health **or** healthcare sustainability.
2	Yes, there are individual faculty members at the **medical school** who are conducting research **related** to planetary health or healthcare sustainability, but it is not their primary research focus.
1	There are planetary health and/or healthcare sustainability researchers at the **institution**, but none associated with the medical school.
0	No, there are **no** planetary health and/or healthcare sustainability researchers at the **institution** or **medical school** at this time.
Several faculty members at the Glasgow School of Medicine research planetary health, but not as their primary research focus. These members of faculty are: Dr Waqar Ahmed, Dr Camille Huser, Dr Andrea Williamson, Dr Noy Basu and Dr Lynsey Yeoman.	

2.2. Is there a dedicated department or institute for interdisciplinary planetary health research at your institution?	
3	There is **at least one** dedicated department or institute for interdisciplinary planetary health research.
2	There is **not currently** a department or institute for interdisciplinary planetary health research, but there are **plans** to open one in the next 3 years.
1	There is an **Occupational and Environmental Health department**, but no interdisciplinary department or institute for planetary health research.
0	There is **no** dedicated department or institute.
Launched in April 2020, The Centre for Sustainable Solutions is an interdisciplinary research hub that aims to develop links between Schools and Colleges at the University around sustainability, as well as build relationships with the greater Glasgow community, in keeping with the Sustainable Development Goals 11 (Sustainable Cities and Communities) and 13 (Climate Action). Since it was founded, the Centre has taken a key role within the University of Glasgow, calling for sustainable solutions across all sectors, providing resources for staff and students to develop sustainability-related initiatives, as	

well as leveraging local, national and international funding and multi-sector partnerships for future calls related to the climate emergency.

2.3. Is there a process by which communities disproportionately impacted by climate change and environmental injustice give input or make decisions about the research agenda at your <u>medical school</u>?	
3	Yes, there is a process in which community members impacted by climate and environmental injustice have **decision-making power** in the climate + environmental research agenda.
2	Yes, there is a process in which community members impacted by climate and environmental injustice **advise** the climate + environmental research agenda.
1	**No**, but there are **current efforts** to establish a process for community members to advise or make decisions on the research agenda.
0	There is **no** process, and **no** efforts to create such a process.
There is no process for communities disproportionately impacted by climate change to give input/make decisions about the research agenda at the medical school.	

2.4. Does your <u>institution</u> have a planetary health website that centralises ongoing and past research related to health and the environment?	
3	There is an **easy-to-use, adequately comprehensive** website that **centralises** various campus resources related to health and the environment including all of the following: upcoming events, leaders in planetary health at your institution, and relevant funding opportunities.
2	There is a website that **attempts to centralise** various campus resources related to health and the environment, but it is hard-to-use, not updated, or not adequately comprehensive.
1	The **institution** has an **Office of Sustainability website** that includes **some** resources related to health and the environment.
0	There is **no** website.
The Centre for Sustainable Solutions website centralises various campus resources related to sustainability, including links to student societies, research being undertaken within various colleges, events and courses, as well as wider University measures tackling climate change (Glasgow Green: Climate Strategy for 2030 Carbon Neutrality).	

2.5. Has your <u>institution</u> recently hosted a conference or symposium on topics related to planetary health?	
4	Yes, the **medical school** has hosted at least one conference or symposium on topics related to planetary health in the past year.
3	Yes, the **institution** has hosted at least one conference or symposium on topics related to planetary health in the past year.

2	Yes, the **institution** has hosted a conference on topics related to planetary health in the past three years.
1	The **institution** has not hosted any conferences directly, but they have provided financial support for a local planetary health event.
0	No, the **institution** has not hosted a conference on topics related to planetary health in the past three years.

The University of Glasgow held several conferences in 2023/2024:

- *HER 2023 Sustainable Developmental Goals: Their potential and relevance for higher education policy and Reform (21-23 of June 2023), on the role of universities in addressing the SDGs*
- *Community insights in health & education in Africa after COVID-19 (29 March 2023, online)*
- *7th Global Forum for ATLVs on Health Education for All (7-9 March 2023, online), on the importance of learning cities and whole-community approach to supporting chronically ill people and their families.*

2.6. Is your medical school a member of a national or international planetary health or ESH organisation?	
1	Yes, the medical school is a member of a national or international planetary health **or** ESH organisation
0	No, the medical school is **not** a member of such an organisation

The University of Glasgow is part of the Global Consortium on Climate and Health Education.

Section Total (12 out of 17)	**70.59%**

Back to Summary Page here

Are there additional research resources offered at your medical school or institution not yet asked about that you would like to describe? If so, please do so below.

Community Outreach and Advocacy

Section Overview: ***This section evaluates medical school engagement in community outreach and advocacy efforts associated with planetary health.*** *Researching and teaching planetary health is necessary but not sufficient. It is critical that institutions also directly engage with communities most affected by environmental health harms. Although climate change is a problem largely created by those with power and resources, its impacts fall disproportionately on under-resourced populations and communities of colour. Institutions should partner with local communities affected by climate change and pollution to share information about environmental health threats, advocate together for change, and provide opportunities for students to be a part of this work.*

3.1. Does your medical school partner with community organisations to promote planetary and environmental health?	
3	Yes, the **medical school** meaningfully partners with **multiple** community organisations to promote planetary and environmental health.
2	Yes, the **medical school** meaningfully partners with **one** community organisation to promote planetary and environmental health.
1	The **institution** partners with community organisations, but the medical school is not part of that partnership.
0	No, there is **no** such meaningful community partnership.
The University of Glasgow has a strong partnership with Glasgow City Council and the City Region through Sustainable Glasgow, Clyde Mission and Climate Ready Clyde. Sustainable Glasgow, a group of 15 partners, works to "improve quality of life in Glasgow, boost the economy and protect the environment… with partners from housing, community, business…"; Clyde Mission aims to transform a riverside corridor running from Glasgow city centre to the sea, supporting a "green recovery" for the region; Climate Ready Clyde, an initiative run by 15 organisations, is planning how Glasgow can adapt to the effects of the climate crisis. *As of January 2022, the University of Glasgow, in partnership with the Glasgow City Council, also launched GALLANT - Glasgow as a Living Lab Accelerating Novel Transformation, which aims to co-produce sustainable solutions (with many health co-benefits) with a variety of communities. Their main projects are centred around halting flood risks, halting biodiversity loss, trialling new ways of regenerating derelict and polluted land, promoting active travel and inclusive mobility, as well as developing low carbon energy solutions.* *The medical school has no direct part in these schemes.*	

3.2. Does your medical school offer community-facing courses or events regarding planetary health?	
3	The **medical school** offers community-facing courses or events at least once every year.
2	The **medical school** offers courses or events open to the community at least once per year, but they are not primarily created for a community audience.

1	The **institution** has offered community-facing courses or events, but the **medical school** was not involved in planning those courses or events.
0	The **institution/medical school** have not offered such community-facing courses or events.

The Glasgow University Environmental Sustainability Team (GUEST) works with local schools, groups and societies, and offers the opportunity for children to learn about planting and gardening in our Viewfield Lane gardens. They also partner with Hillhead Primary School to offer workshops aiming to introduce children to local wildlife and conservation.

GUEST also collaborates with other Glasgow universities to deliver the Glasgow Goes Green festival. The theme for the festival this year is: Celebrating Green Connections. The festival provides a forum for students and organisations across Glasgow to show their work, their values and the action they are taking to promote sustainability. This includes free bike repair hubs, nature walks, tree planting sessions

GUEST also runs a monthly climate cafe for individuals, societies, staff, and community groups can share their knowledge, experiences, and expertise as well as network. At each session a guest speaker is usually invited.

The Baltic Street Community Food Hub, part of the Adventure Playground scheme developed and supported by our Adam Smith Business School, is a partnership with community growers and a food redistribution charity that of ers local children the opportunity to grow and tend their own produce. They learn about healthy ways to cook, and ways to spread that knowledge to older residents. The garden has up to 500 visitors a day.

3.3. Does your medical school have regular coverage of issues related to planetary health and/or sustainable healthcare in university update communications?

2	Yes, all students **regularly** receive communication updates dedicated to planetary health and/or sustainable healthcare.
1	Yes, planetary health and/or sustainable healthcare topics are **sometimes** included in communication updates.
0	Students **do not** receive communications about planetary health or sustainable healthcare.

There have been no communications about planetary health or sustainable healthcare in the weekly roundups and bulletins sent out via emails to medical students this year.

3.4. Does the institution or main affiliated hospital trust engage in professional education activities targeting individuals post graduation with the aim of ensuring their knowledge and skills in planetary health and sustainable healthcare remain up to date during their professional career?

2	Yes, the **institution** or **main affiliated hospital trust** offers multiple in-person or online courses relating to planetary health and/or sustainable healthcare for post-graduate providers, including at least one with a primary focus of planetary health.

1	Yes, the **institution** or **main affiliated hospital trust** offers one course relating to planetary health and/or sustainable healthcare for post-graduate providers
0	There are **no** such accessible courses for post-graduate providers
The University of Glasgow offers several Continuing Professional Development courses: "Globalisation & Public Health" and "Planetary Health", which are both a semester long (10 weeks). The former provides an analysis of Globalisation and its impact on public health by examining the major health related themes within the globalisation debate, while the latter explores the relationship between the health of people and the Earth's natural systems, as well as the role the physical environment plays in health inequalities.	

3.5. Does your medical school or its affiliated teaching hospitals have accessible educational materials for patients about environmental health exposures?	
2	Yes, the **medical school** or **all affiliated hospitals** have accessible educational materials for patients.
1	**Some** affiliated hospitals have accessible educational materials for patients.
0	**No** affiliated medical centres have accessible educational materials for patients.
There does not seem to be accessible documents or materials for patients about the impact of toxic substance or pollutant exposure on health and wellbeing, across the health boards affiliated with the Medical School.	

3.6. Does your medical school or its affiliated teaching hospitals have accessible educational materials for patients about the health impacts of climate change?	
2	Yes, the **medical school** or **all affiliated hospitals** have accessible educational materials for patients.
1	**Some** affiliated hospitals have accessible educational materials for patients.
0	**No** affiliated hospitals have accessible educational materials for patients.
There does not appear to be any accessible education materials on the health impacts of climate change across the health boards affiliated with the Medical School.	

Section Total (4 out of 14)	**28.57%**

Back to Summary Page here

Are there additional community engagement and advocacy resources offered at your medical school or institution not yet asked about that you would like to describe? If so, please do so below.

Support for Student-Led Planetary Health Initiatives

Section Overview: ***This section evaluates institutional support for student-led planetary health initiatives, such as funding, fellowships, programming, and student groups.*** *Planetary health is a young field and, as young people facing a future deeply shaped by climate change, students are often some of the first at an institution to engage with it. Institutions should provide support for students to engage in sustainability quality improvement (QI) initiatives, discover mentors in their area of interest, and receive funding for planetary health projects.*

4.1. Does your medical school or your institution offer support for medical students interested in enacting a sustainability initiative/QI project?	
2	Yes, the **medical school** or **institution** *either* offers grants for students to enact sustainability initiatives/QI projects *or* sustainability QI projects are part of the core curriculum.
1	The **medical school** or **institution** encourages sustainability QI projects (to fulfil clerkship or longitudinal requirements) and offers resources to help students succeed in these projects, **but** there is no student funding available and there is no requirement to participate.
0	No, **neither** the medical school or the institution offer opportunities or support for sustainability initiatives or QI projects.
The University of Glasgow can nominate up to 4 student-led projects based on an aspect of the United Nations Sustainable Development Goals, as part of the U21 RISE awards, to receive $2000 (USD) funding and ongoing networking and promotional support. *The University of Glasgow Medical School also allocates time during the core curriculum for "Student Selected Components" in Years 3 and 4, which offer students the opportunity to choose a topic they would like to research for a five week period. Namely, students can undertake a "Sustainability in Surgery" project which includes a QI or audit project relating to sustainable healthcare, or self-propose their own project related to sustainability.*	

4.2. Does your institution offer opportunities for medical students to do research related to planetary health and/or sustainable healthcare?	
2	The **institution** has a **specific** research program or fellowship for students interested in doing planetary health/sustainable healthcare research.
1	There are research opportunities for students to perform research related to planetary health/sustainable healthcare, but these **require student initiative** to seek these out and carry them out in their spare time.
0	There are **no opportunities** for students to engage in planetary health/sustainable healthcare research.
The University of Glasgow Medical School allocates time during the core curriculum for "Student Selected Components" in Years 3 and 4, which offer students the opportunity to choose a topic they would like to research for a five week period. This includes topics such as "Global, Environmental & Planetary Health", "Introduction to climate change & sustainable healthcare". Students can also propose their own topic as long as they find an appropriate supervisor; as such, many students have	

undertaken Student Selected Components on various aspects of planetary health or sustainable healthcare research.

4.3. Does the <u>medical school</u> have a webpage where medical students can find specific information related to planetary health and/or sustainable healthcare activities and mentors within the medical school? For example, projects achieved, current initiatives underway at the medical school and/or contact of information of potential mentors.	
2	The **medical school** has a webpage with specific information related to planetary health or sustainable healthcare that includes up-to-date information on relevant initiatives and contact information of potential mentors.
1	There is a **medical school** webpage that features some information on projects and mentors within planetary health and sustainable healthcare within the medical school, but it lacks key information.
0	There is **no medical-school** specific webpage for locating planetary health and/or sustainable healthcare projects or mentors.
The medical school has two Moodle web pages dedicated to helping students with finding Electives and SSCs; these include directories of current project proposals and past projects. Amongst these are projects relating to planetary health and sustainable healthcare. While there is no specific webpage dedicated to such projects, some of them do include links to past supervisor's email.	

4.4. Does your <u>medical school</u> have registered student groups dedicated towards fostering a culture of planetary health engagement, scholarship, and advocacy on campus, supported by faculty advisors?	
2	Yes, there is a student organisation **with faculty support** at my medical school dedicated to planetary health or sustainability in healthcare.
1	Yes, there is a student organisation at my medical school dedicated to planetary health or sustainability in healthcare but it **lacks faculty support.**
0	No, there is **not** a student organisation at my institution dedicated to planetary health or sustainability in healthcare.
There are no registered student groups within the medical school dedicated to planetary health or sustainability in healthcare.	

4.5. Is there a student liaison representing sustainability interests who serves on a <u>medical school</u> or <u>institutional</u> decision-making council to advocate for curriculum reform and/or sustainability best practices?	
1	Yes, there is a student representative that serves on a medical school or institutional decision-making council/committee.
0	No, there is no such student representative.

The Environmental Officer position within the University's Students' Representative Council is open for any Glasgow University student, including medical students. They advocate for environmental concerns of students, and facilitate student response to environmental issues, both of local and national significance.

4.6. In the past year, has the institution had one or more co-curricular planetary health programs or initiatives in the following categories? (1 point each)	
1	Projects where students are able to gain experience in organic agriculture and sustainable food systems, such as gardens, farms, community supported agriculture (CSA), fishery programs, or urban agriculture projects.
1	Panels, speaker series, or similar events related to planetary health that have students as an intended audience.
1	Events in which students learn directly from members of a local environmental justice community about the climate and environmental challenges they face, and how health professionals can partner with their community to address these exposures and impacts.
1	Cultural arts events, installations or performances related to planetary health that have students as an intended audience.
1	Local volunteer opportunities related to building community resilience to anthropogenic environmental impacts.
1	Wilderness or outdoors programs (e.g., that organise hiking, backpacking, kayaking, or other outings for students)

1. Glasgow University Environment and Sustainability Team (GUEST) has a community garden, the Viewfield Lane Gardens, where students and staff can gain an understanding of sustainable food production, while also having a role in the gardening process, throughout the year.
2. There are no panels, etc. related to planetary health that have students as an intended audience.
3. There are no events in which students learn directly from members of a local justice community.
4. The University of Glasgow's College of Arts organises "the Dear Green Bothy", a programme of free public events and activities demonstrating the vital role played by the arts and humanities in understanding and addressing climate emergency. While not centred around health per se, many of the events are created in the intention of sparking open discussions around climate-related issues; this naturally encompasses how environments shape human identity and behaviours, which are intrinsically linked to well-being and health. Such events include "So help me, Cabbage" that looked at how the image of the cabbage evolved over time, initially seen as harbouring a range of medicinal virtues, as well as "Soundwalks", where participants meditate on the impact of humans and noise pollution on our local environments.
5. GUEST hosts regular "Climate Cafes" and tree planting events where students and staff from the University of Glasgow and other surrounding universities can discuss climate change related issues, including health, in order to identify opportunities for local change and foster a sense of community and support.
Festival guest
6. Many societies at the University of Glasgow organise outdoor activities and programs; for example, the Glasgow Mountaineering Society organises fortnightly weekend meets where students can hike and climb around the UK. Mountain Medicine society runs hikes, weekend trips to the highlands, wilderness medicine teaching, and mountain rescue events. The Glasgow Uni Surf Riders also hold

surfing trips to the East and West coasts of Scotland. The Polar Bear Club runs trips across Scotland to Lochs, beaches and waterfalls for students to enjoy the benefits of wild swimming.

Section Total (10 out of 15)	**66.67%**

Back to Summary Page here

Are there additional student-led initiative resources offered at your medical school or institution not yet asked about that you would like to describe? If so, please do so below.

Campus Sustainability

Section Overview: ***This section evaluates the support and engagement in sustainability initiatives by the medical school and/or institution.*** *The healthcare industry is a major contributor to greenhouse gas emissions as well as pollution that harms local, regional, and global ecosystems. While healthcare is, by nature, a resource-intensive endeavour, the healthcare sector is well poised to lead the world to a more sustainable future. This will involve scrutinising every aspect of how our systems operate, from where we source our energy, to how we build our infrastructure, to what companies we invest in. Our medical schools, clinics, and hospitals must set the standard for sustainable practices, and show other sectors what is possible when it comes to minimising environmental impact.*

5.1. Does your medical school and/or institution have an Office of Sustainability?	
3	Yes, there is an Office of Sustainability with multiple full-time staff dedicated to campus sustainability. If the Office of Sustainability serves the entire campus, there is **at least one designated staff member** for sustainability at the hospital and/or medical school.
2	There is an Office of Sustainability with one or more full-time staff dedicated to campus sustainability, but **no specific staff member** in charge of medical school and/or hospital sustainability.
1	There are **no salaried sustainability staff,** but there is a sustainability task force or committee
0	There are **no** staff members **or** task force responsible for overseeing campus sustainability
The University of Glasgow has a "Centre for Sustainable Solutions", with one member of staff dedicated to Campus sustainability. However, there is no such staff within the medical school.	

5.2. How ambitious is your institution/medical school plan to reduce its own carbon footprint?	
5	The institution/medical school has a **written and approved plan** to achieve carbon neutrality by **2030**
3	The institution/medical school has a **written and approved plan** to achieve carbon neutrality by **2040**
1	The institution/medical school has a stated goal of carbon neutrality by **2040** but has **not created a plan** to reach that goal or the **plan is inadequate**
0	The institution/medical school does **not** meet any of the requirements listed above
The University of Glasgow is committed to a carbon neutrality plan by 2030, which encompasses the Medical School. It has a clear Climate Action Plan that outlines the work needed to meet this goal along with what has already been achieved. More information around the Climate Action Plan can be found here.	

5.3. Do buildings/infrastructure used by the medical school for teaching (not including the

hospital) utilize renewable energy?	
3	Yes medical school buildings are **100%** powered by renewable energy
2	Medical school buildings source **>80%** of energy needs from off-site and/or on-site renewable energy.
1	Medical school buildings source **>20%** of energy needs from off-site and/or on-site renewable energy.
0	Medical school buildings source **<20%** of energy needs from off-site and/or on-site renewable energy.

Despite having an "Energy Strategy" plan in order to better understand, manage and reduce energy consumption and carbon emissions, the University of Glasgow sourced < 20% of energy from offsite/onsite renewable energy. Indeed, the current energy provider is EDF who produce only 11% of their energy from renewables. This includes medical school buildings.

5.4. Are sustainable building practices utilised for new and old buildings on the medical school campus, with design and construction of new buildings and remodelling of old buildings conforming to a published sustainability rating system or building code/guideline?	
3	Yes, sustainable building practices are utilised for new buildings on the medical school campus and the **majority** of old buildings **have been retrofitted** to be more sustainable.
2	Sustainable building practices are utilised for new buildings on the medical school campus, but most old buildings have **not been retrofitted.**
1	Sustainable building practices are **inadequately or incompletely** implemented for new buildings.
0	Sustainability is **not considered** in the construction of new buildings.

At the University of Glasgow, all new building projects are required to achieve a minimum Building Research Establishment Environmental Assessment Method (BREEAM) rating of "excellent" as well as an EPC rating of "A". Nevertheless, while there are some efforts to refurbish the old infrastructure at the University, most old buildings have not been retrofitted.

A new Sustainability Team has been created by Estates, dedicated to achievement of the strategic objectives, NZ30. This would include having a Climate Neutral plan for all buildings. A new building is in design - the Post Mortem suite at Garscube - and this will be designed to achieve sustainable goals. For older buildings, the plan will inform the upgrades and adaptations that are required. However, the team is in early stages with this.

5.5. Has the medical school or institution implemented strategies to encourage and provide environmentally-friendly transportation options for students and reduce the environmental impact of commuting?	
2	Yes, the medical school or institution has implemented strategies to encourage and provide **environmentally-friendly transportation options** such as safe active transport, public transport,

	or carpooling and these options are well-utilised by students. Alternatively, the campus location is not amenable to unsustainable forms of transportation by default.
1	The medical school or institution has implemented **some** strategies to provide environmentally-friendly transportation options, but the options are **unsatisfactorily** accessible or advertised.
0	The medical school or institution has **not** implemented strategies to encourage and provide environmentally-friendly transportation options.

The ongoing NextBike initiative allows students to sign up for unlimited 60-minute bike rentals for free, all year round. The university website provides information on cycle training opportunities, and safe cycle routes within the campus as well as to/from the main hospital site used by the Medical School. In addition to cycle parking, there are multiple bicycle repair stations and a bicycle inner tube vending machine on campus. There is a BikeHub service on campus once a week, available for all students to receive free repairs, maintenance and advice from a trained mechanic.

The main university campus is well connected with public transport links to various parts of the city, including buses, subway and train. However, some of the hospitals medical students travel to for their clinical attachments can lead to long commutes by public transport, due to multiple types of transportation being used and unaccommodating transport schedules. Most of the clinical placements provide information on various public transport options available during the induction.

An incentive for carpooling among the medical students travelling to clinical placements could be implemented for enhancing sustainability. Night buses in Glasgow run for two nights a week. Encouragement for the extension of this service would also be a helpful sustainability step, especially with more students having to live further away from the campus with the rising cost of living and lack of accommodation availability.

5.6. Does your <u>medical school</u> have an organics recycling program (compost) and a conventional recycling program (aluminium/paper/plastic/glass)?

2	Yes, the medical school has **both** compost **and** recycling programs accessible to students and faculty.
1	The medical school has **either** recycling **or** compost programs accessible to students and faculty, but not both.
0	There is **no** compost or recycling program at the medical school.

The University of Glasgow has multiple bins for general waste, recycling, and composting located around campus, including in the medical school building. These 3-in-1 waste bins are largely placed near dining areas and building main entrances, and can be accessed by both staff and students.

5.7. Does the <u>medical school</u> apply sustainability criteria when making decisions about the campus food and beverage selections (e.g. local sourcing, reduced meat, decreased plastic packaging)?

3	Yes, the medical school has a**dequate s**ustainability requirements for food and beverages, including meat-free days or no red-meat, and **is engaged** in efforts to increase food and beverage sustainability.
2	There are sustainability guidelines for food and beverages, but they are **insufficient or optional**. The medical school **is engaged** in efforts to increase food and beverage sustainability.
1	There are sustainability guidelines for food and beverages, but they are **insufficient or optional.** The medical school is **not** engaged in efforts to increase food and beverage sustainability.
0	There are **no** sustainability guidelines for food and beverages.

There are no guidelines specific to the medical school, rather, decisions about food and beverages are run centrally by the University, where they have to follow a "Sustainable Food and Strategy and Action Plan". Its main aims are to source local/ regional and seasonal food, have a positive impact on local communities, and reduce related carbon emissions. This has allowed the University to achieve a 2-star rating (out of 3 stars) from the Sustainable Restaurant Association.
While the University has made considerable efforts sourcing local and seasonal food, providing more plant-based options, and decreasing plastic packaging, they still serve many meat options, which are not necessarily ethically sourced, and have not significantly reduced their energy and water use. The medical school does not seem to be engaged in efforts to increase food and beverage sustainability.

5.8. Does the medical school or institution apply sustainability criteria when making decisions about supply procurement?	
3	Yes, the medical school has **adequate** sustainability requirements for supply procurement **and** is **engaged** in efforts to increase sustainability of procurement.
2	There are sustainability guidelines for supply procurement, but they are **insufficient or optional.** The medical school is **engaged** in efforts to increase sustainability of procurement.
1	There are sustainability guidelines for supply procurement, but they are **insufficient or optional.** The medical school is **not engaged** in efforts to increase sustainability of procurement.
0	There are **no** sustainability guidelines for supply procurement.

The medical school coordinates procurement through the University's central Procurement Office, and must therefore adhere to the office's sustainability objectives centred around "Corporate Social Responsibility, Circular Procurement, Fair Trade, Community Benefits, Living Wages, Supported businesses, Sustainability Code of Conduct, Anti-bribery & Corruption" [1]. Furthermore, the University of Glasgow requests that all suppliers they contract with sign up to Eco-Vadis, a software platform that oversees how an individual supplier is doing in relation to all aspects of Sustainability Issues. The University of Glasgow is also an accredited Living Wage' employer, holds Fairtrade status and is a member of Electronics Watch.

5.9. Are there sustainability requirements or guidelines for events hosted at the medical school?	
2	Every event hosted at the medical school **must** abide by sustainability criteria.

1	The medical school **strongly recommends or incentivizes** sustainability measures, but they are **not required.**
0	There are **no** sustainability guidelines for medical school events.

There are no sustainability guidelines for events available on the medical school website, nor do the Conferences and Events Team offer any guidelines in response to enquiries about event bookings. The Student Representative Council does not offer explicit guidance on making sustainable events for Clubs and Societies.

5.10. Does your medical school have programs and initiatives to assist with making lab spaces more environmentally sustainable?	
2	Yes, the medical school has **programs** and **initiatives** to assist with making lab spaces more environmentally sustainable.
1	There are **guidelines** on how to make lab spaces more environmentally sustainable, but not programs or initiatives.
0	There are **no** efforts at the medical school to make lab spaces more sustainable.

Neither the teaching nor the clinical labs in the medical school have Laboratory Efficiency Assessment Framework (LEAF) certification, however, lab leads have expressed interest and/or have begun the process of obtaining at least the Bronze LEAF award. This would mean meeting the criteria set out by LEAF.
Furthermore, there have been some internal efforts by the medical school labs to make them more sustainable, including the reduction of single use plastics, in favour of reusable glass where possible.

5.11. Does your institution's endowment portfolio investments include fossil-fuel companies?	
4	The institution is **entirely divested** from fossil fuels **and** has made a **commitment to reinvest divested funds** into renewable energy companies or renewable energy campus initiatives.
3	The institution is **entirely divested** from fossil fuels.
2	The institution has **partially divested** from fossil fuel companies **or** has made a **commitment to fully divest**, but **currently** still has fossil fuel investments.
1	The institution has **not divested** from fossil-fuel companies, but faculty and/or students are **conducting organised advocacy** for divestment.
0	Yes, the institution has investments with fossil-fuel companies and there have been **no efforts** to change that.

The University of Glasgow has completed the process of fully divesting from fossil fuel companies, realising a commitment made in 2014.

The University of Glasgow decided to divest from fossil fuels in 2014, committing to a 10 year divestment period, but is yet to be fully divested from fossil fuel companies, still investing £5.5 million. Their statement can be found here.

Section Total (20 out of 32)	62.50%

Back to Summary Page here

Are there additional sustainability resources offered at your medical school or institution not yet asked about that you would like to describe? If so, please do so below.

Grading

Section Overview
This section focuses on the grading of the report card. The institution received a grade for each of the individual sections as well as an overall institutional grade. Section point totals were tallied, divided by the total points available for the section, and converted to a percentage. The overall institutional grade is a weighted average of the section grades, with curriculum receiving a higher weight owing to its larger number of metrics. Letter grades for each section and the institution overall were then assigned according to the table below.

Letter Grade*	Percentage
A	80% - 100%
B	60% - 79%
C	40% - 59%
D	20% - 39%
F	0% - 19%

**Within each grade bracket, a score in the top 5% (_5 to_9%), receives a "+", and a score in the bottom 5% (_0-_4%) receives a "--". For example, a percentage score of 78% would be a B+.*

Planetary Health Grades for the University of Glasgow School of Medicine
The following table presents the individual section grades and overall institutional grade for the University of Glasgow School of Medicine on this medical-school-specific Planetary Health Report Card.

Section	Raw Score %	Letter Grade
Planetary Health Curriculum (30%)	(45/72) x 100 = 62.50%	B-
Interdisciplinary Research (17.5%)	(12/17) x 100 = 70.59%	B
Community Outreach and Advocacy (17.5%)	(4/14) x 100 = 28.57%	D
Support for Student-led Planetary Health Initiatives (17.5%)	(10/15) x 100 = 66.67%	B
Campus Sustainability (17.5%)	(20/32) x 100 = 62.50%	B-
Institutional Grade	**(Ax0.3 + Bx0.175 + Cx0.175 + Dx0.175 + Ex0.175) = 58.71%**	**C+**

Report Card Trends

Section Overview
This graph demonstrates trends in overall and section grades for the years in which the University of Glasgow has participated in the Planetary Health Report Card initiative.